



Nat. Size

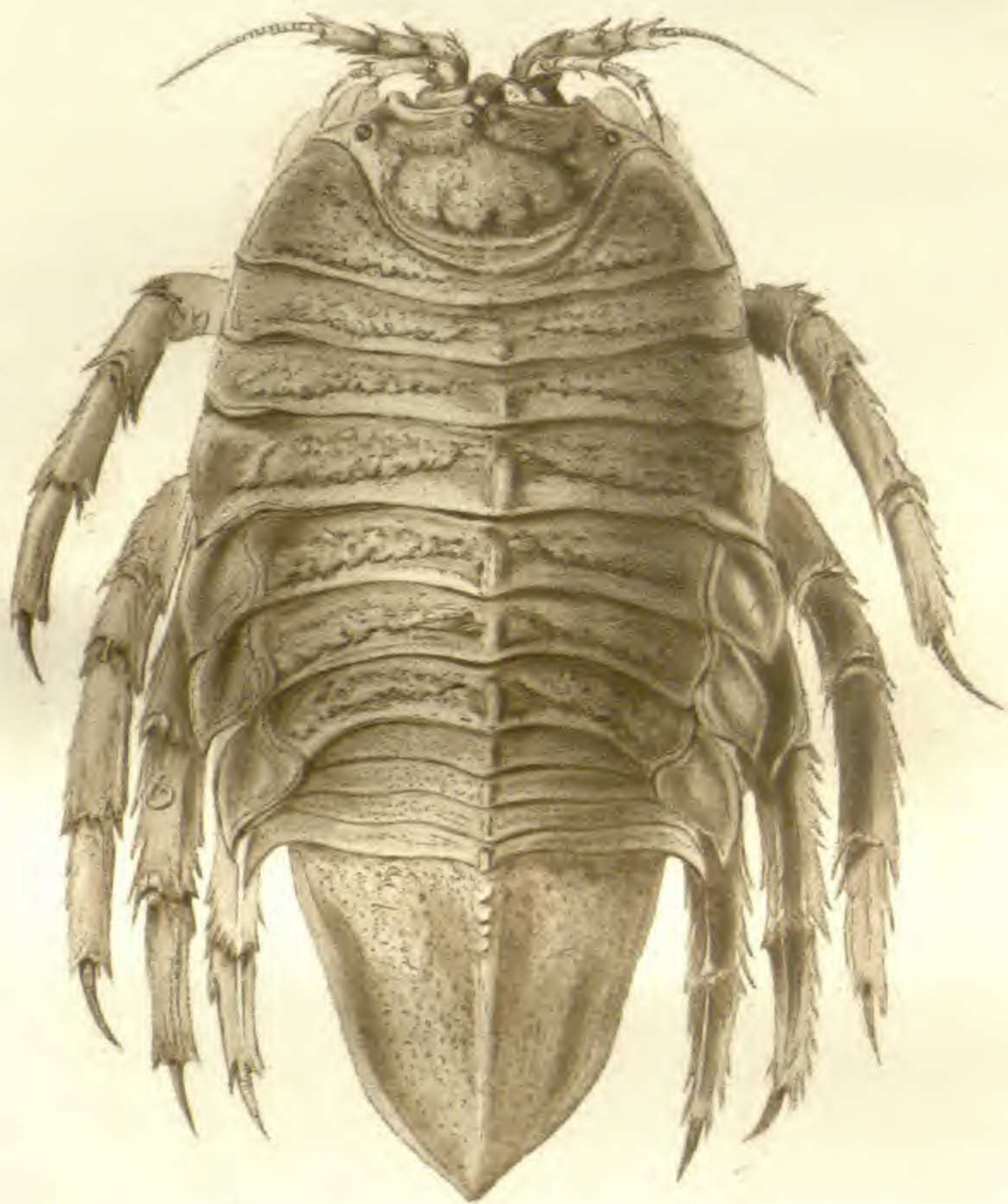
Clypeonotus antarctica (Muller)

under surface

1 Inferior antennae

2 Superior antennae

Magnified



Pl. 87.
Glyptonotus antarctica (Cuvillier)
upper Silurian.

DESCRIPTION

Of a New Animal belonging to the CRUSTACEA, discovered in the Antarctic Seas, by the author, JAMES EIGHTS.

[Cabinet of the Albany Institute.]

GENUS GLYPTONOTUS. (EIGHTS.)

Animal composed of a head, thorax, and post-abdomen or tail, constituting in all thirteen distinct segments.

Head deeply inserted into the cephalic segment of the thorax. *Eyes* sessile, and finely granulate. *Antennæ* two pairs, placed one above the other, with an elongate multi-articulated filament. *Mouth* as in the ordinary *Isopods*; mandibles not palpigerous; the two superior foot-jaws expanded into a well defined lower lip, bearing palpi.

Thorax separated into seven distinct segments, the three posterior ones biarticulate near their lateral extremities; each segment giving origin to a pair of perfect legs, terminating with a strong and slightly curved nail.

Post-abdomen, or tail, divided into five segments, provided with neither styles nor swimmerets; the under surfaces each supporting a pair of branchial leaflets, longitudinally arranged, and covered by two biarticulated plates attached to the outward edges of the last segment, closing over them much in the manner of an ordinary bivalve shell.

SPECIES G. ANTARCTICA. (EIGHTS.)

ANTARCTIC SCULPTURE-BACK.

Animal perfectly symmetrical, ovate, elongate, and depressed. Teguments solid and calcareous. Color, brown sepia. Length, from the insertion of the antennæ, three and a half inches; width, one and three-quarters.

Head transversely elliptical, terminating at its lateral and anterior corners acutely, and incurved; anterior margin obtusely elevated, and arched each way to its centre.

Superior surface of the head ornamented with an imperfectly sculptured "fleur-de-lis;" posterior portion obtusely elevated, producing a marginal rim. *Eyes* small, reniform, indigo blue, and placed near the lateral and anterior portion of the head, so deeply impressed in the margin of the shell as to be easily distinguished from beneath. Inferior pair of *antennæ* longer than the superior, corresponding in length to the width of the head, transversely, from spine to spine; articulations four in number; last segment longest, the remaining three gradually diminishing in length as they proceed to the place of insertion; segments triangulate, with angular projections on their surfaces; edges of the angles, and articulating extremities rigidly spined. Terminating filament about the length of the basal articulations, gradually attenuated until it diminishes to a finely pointed apex. Superior *antennæ* half the length of the inferior, three-jointed, and terminating with an attenuated filament whose articulations are indistinct; segments angular, external one much the longest; extremities and angles likewise spined. *Mouth* with the labrum or upper lip hard and massive, resembling in form a reversed heart. The mandibles are without palpi, stout and osseous, tipped with a hard and black enamel. The maxillæ are furnished with the usual palpi. The lower lip, or superior foot-jaws when united, sub-cordate; its palpi five-jointed, snugly embracing the manducatory organs along their base, like a row of ciliated leaflets.

The *thorax* is composed of seven distinct segments, each one being beautifully ornamented on its superior surface by an elongated and sub-conic insculptation, forming a series, whose pointed apices almost unite along the longitudinal dorsal ridge. These segments are finely bordered along their posterior articulating edges by an elevated and continuous marginal rim, extending to the lateral extremities of the shell. The cephalic depression is likewise margined by an obtusely elevated border. Each segment

of the thorax gives origin, beneath, to a pair of ponderous angulated legs, composed of the ordinary parts. The three anterior pairs project themselves forward, and are closely compressed upon the inferior surfaces of the three foremost segments; they are monodactyle, with the nails incurved upon the anterior edges of the rather largely inflated penultimate joint. Each joint is furnished at its articulating extremity with rigid spines; the inner edges of the penultimate joint, together with those of the three adjoining, are provided with a double row of tufted cilia, disposed diagonally, and much resembling in appearance the arrangement of hairs in an ordinary brush. The four posterior pairs of legs are directed backwards, strongly triangulate, stout and ponderous, terminating by a slightly curved nail; their length is nearly equal, but they gradually increase in thickness as they recede toward the tail. The basal joints are large and inflated; the remainder regularly angulate. The extremities of the articulating joints, and edges of the two inferior angles, are each provided with a series of tufted and rigid spines.

The *post-abdomen* is composed of five segments. The four anterior ones are much smaller than those which constitute the thorax, but greatly resemble them in form, being ornamented on their superior surfaces with similar insculptations, though but slightly defined. Each of these segments is provided beneath with a pair of articulated pedicels, which furnish a support to the bifoliated bronchial leaflets. These leaflets are arranged longitudinally one upon the other, and are entirely concealed by the biarticulated plates of the caudal segment; they are subovate and elongate; the outward ones smaller than those which they cover, and are nearly surrounded by a fringed cilia, most conspicuously developed along their inner margins. The second pair are each supplied with an elongated style, extending almost to the termination of the caudal segment. The terminating segment is large and

triangular, giving attachment to the biarticulated plates at a single point on its outer margins near the base, which enables the animal to close them together in a line along its centre beneath. These plates are about the length of the segment, and of a triangulate form, each one having near its termination a small oval articulation. The segment and marginal plates are slightly inflated along their external edges, producing an obtusely elevated border.

The segments constituting the thorax and post-abdomen are supplied by a central, angular, and elongated knob, which, when united, form a prominent dorsal ridge, gradually diminishing in its backward course, and forming a sharp elevated line along the caudal segment, terminating at its extremity in a short and obtusely pointed spine.

This beautiful crustacean furnishes to us another close approximation to the long lost family of the *Trilobite*. I procured them from the southern shores of the New South Shetland Islands. They inhabit the bottom of the sea, and are only to be obtained when thrown far upon the shores by the immense surges that prevail when the detached glaciers from the land precipitate themselves into the ocean.